

**CLAIMS****What is claimed is:**

- 5 1. A single use self-contained surgical knife having a single blade, comprising:
  - a. containment means for housing said surgical knife blade;
  - b. stabilization means having at least a pair of slot faces for preventing twisting of said  
blade;
  - c. lateral stabilization means having at least two shaft support bushings for supporting a  
10 shaft carrying said blade;
  - d. retraction means for exerting spring tension on said knife blade to move said blade  
into said containment means;
  - e. locking means comprising a rectangular lug misaligned to a rectangular opening in a  
knurled ring member, for locking said knife blade in an 'in-use' position; and
  - 15 f. turning means for turning said knurled ring member to release the rectangular lug  
and retract the knife blade permanently into the said containment casing.
2. A single use self-contained surgical knife as recited by claim 1, wherein said slot faces  
are formed in a slot block, and said slot block is attached to the containment casing.
3. A single use, self-contained surgical knife as recited by claim 2, wherein said slot faces  
20 are coated with a low friction material.
4. A single use, self-contained surgical knife, as recited by claim 2, wherein said slot block  
is fabricated from PTFE, HDPE or other low friction material.
5. A single use, self-contained surgical knife, as recited by claim 1, wherein said knurled  
ring member is coated with a low friction coating for easy release of said rectangular lug.

6. A process for making a single use self-contained surgical knife, comprising the steps of:
- a. assembling together a plurality of components to form a central knife shaft assembly of said surgical knife, said components including:
    - (i) a central shaft;
    - 5           (ii) a welded knife blade;
    - (iii) a welded cylindrical lug; and
    - (v) a welded rectangular lug;
  - b. assembling component parts of a two part containment casing structure having a containment member and a support member capable of providing lateral and twist  
10           support for said knife blade and said central knife shaft assembly;
  - c. inserting said central shaft assembly into said support member;
  - d. inserting a compression spring to rest on the said support member;
  - e. inserting a knurled ring member aligning a rectangular opening with a rectangular  
            lug of said central knife shaft assembly;
  - 15   f. applying pressure with a specialized tool to compress the said compression spring  
            against said cylindrical lug; and
  - g. turning said knurled ring member to misalign said opening with said lug.